



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,303	03/17/2005	Peter J. Janssen	US 020335	4520
24737	7590	03/23/2006	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			DUONG, TAI V	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/528,303

Applicant(s)

JANSSEN, PETER J.

Examiner

Tai Duong

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/17/05</u> . | 6) <input type="checkbox"/> Other: ____  |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-6, 8, 10, 11, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu (US 6,151,094) cited by Applicant.

Note Fig. 2 which identically discloses the claimed optical projection system comprising a reflective liquid crystal (LC) panel 30 including a twisted-nematic (TN) LC material, wherein one mode of the material includes a 90 degree twist (90TN0); and at least one optical device 26, the optical retarder 32 is optional, and the contrast ratio is about 1000:1 (col. 5, line 11 – col. 6, line 67).

Claims 1, 2, 4-6, 10 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuo (US 5,886,754).

Note Fig. 1 which identically discloses the claimed optical projection system comprising a reflective liquid crystal (LC) panel (105, 106, 107) including a twisted-nematic (TN) LC material, wherein one mode of the material includes a 90 degree twist (90TN0); and at least one optical device (102, 103) and no optical retarder (col. 2, line 65 – col. 3, line 46).

Claims 10 and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Odoi et al. (US 6,181,399).

Note Fig. 7 which identically discloses the claimed reflective LC panel and method comprising providing a reflective liquid crystal (LC) panel 3 including a twisted-

Art Unit: 2871

nematic (TN) LC material, wherein one mode includes a 90 degree twist (90TN0) wherein an optical compensator is not provided. It is noted that the preamble "selectively from a light source to a projection system" has not been given patentable weight. As to claims 16-19, see discussions in column 1, line 46 to column 2, line 23.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 7, 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 6,151,094) in view of Schehrer et al (US 2002/0003508) cited by Applicant.


Claims 3 and 7 additionally recite the optical projection system being a color sequential LC projection system and the color sequential LC projection system including a polarizing beam splitter, a light source adapted to project red, blue and green light, and projection optics. Schehrer et al disclose in Fig. 1B that it was known to employ a color sequential LC projection system including a polarizing beam splitter, a light source adapted to project red, blue and green light, and projection optics. Thus, it would have been obvious to a person of ordinary skill in the art to employ in Wu's projection system a light source adapted to project red, blue and green light, and projection optics for obtaining a compact full color projection system. As to claims 9 and 12, it would have been obvious to a person of ordinary skill in the art to optimize the parameters of the LC panel for achieving a contrast ratio of approximately 1200:1 for red light, approximately

Art Unit: 2871

2200:1 for green light, and approximately 1150:1 for blue light thereby obtaining a full color projection system with high contrast ratio. As to claim 13, it would have been obvious to a person of ordinary skill in the art to optimize the thickness of the LC layer in the range of approximately 1000 nm to approximately 1350 nm for obtaining a LC panel with fast response.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

  
TOANTON  
PRIMARY EXAMINER

  
TVD

03/06